

What is claimed is:

1. A communication system serving as a transmitter terminal and a receiver terminal for communications with a second communication system via a communication line, the communication system comprising:

a storage section for data storage;

a communication section for data communications, the communication section being adapted for reception and transmission of data and size information indicative of the size of the data with respect to the second communication system;

a detection section for detecting a free space in the storage section;

a comparing section for comparing the data size contained in the size information with the size of the free space in the storage section;

a calculating section for, if the storage section is short of free space for accommodation of the data size, calculating a waiting period required for recovery from the shortage of the free space in the storage section; and

a timer section for timing the lapse of the waiting period.

2. A communication system as set forth in claim 1, wherein, when the communication system functions as the receiver terminal, the communication section requests the second communication system to transmit the data and the

size information thereto, and receives the size information from the second communication system,

wherein, if the size of the free space in the storage section is smaller than the data size contained in the size information, the communication section gives information of a reception disabled state thereof and the waiting period to the second communication system, and causes the second communication system to transmit the data thereto after the lapse of the waiting period.

3. A communication system as set forth in claim 2, wherein, if a data reception request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section gives information of the reception disabled state thereof to the external terminal, and is prohibited from data reception.

4. A communication system as set forth in claim 2, wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the receiver terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period.

5. A communication system as set forth in claim 1,

wherein, when the communication system functions as the transmitter terminal, the communication section receives a request for transmission of the data and the size information from the second communication system and, in response to the request, transmits the size information to the second communication system,

wherein, if a storage section of the second communication system is short of free space, the communication section receives from the second communication system a waiting period required for recovery from the shortage of the free space in the storage section of the second communication system, disconnects the communication line and, after the lapse of the waiting period, establishes a line connection again to the second communication system to transmit the data to the second communication system.

6. A communication system as set forth in claim 5,

wherein, if a data transmission request is received from any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section transmits data to the external terminal on condition that the data to the external terminal has a size such that the data transmission can be completed before the lapse of the waiting period.

7. A communication system as set forth in claim 5,
wherein, if a data reception request is received from

any other external terminal before the lapse of the waiting period when the communication system functions as the transmitter terminal, the communication section receives data from the external terminal on condition that the data from the external terminal has a size such that the data reception can be completed before the lapse of the waiting period.

8. A communication system as set forth in claim 1, which is a facsimile machine.

9. A communication system as set forth in claim 1, which is an information processing system having a communication function.

10. A communication system as set forth in claim 2 or 5, wherein the data is image data.

11. A communication system as set forth in claim 2 or 5, wherein the data is an E-mail.

12. A method for communications between a transmitter terminal and a receiver terminal via a communication line, the method comprising the steps of:

causing a communication section of the receiver terminal to request transmission of data and size information indicative of the size of the data from the transmitter terminal;

causing a detection section of the receiver terminal to detect a free space in a storage section of the receiver terminal;

causing a comparing section of the receiver terminal to compare the data size contained in the size information with

the size of the free space in the storage section of the receiver terminal;

if the storage section of the receiver terminal has a sufficient free space for accommodation of the data size,

- 5 causing the transmitter terminal to transmit the data to the communication section of the receiver terminal; and

if the storage section of the receiver terminal is short of free space for accommodation of the data size, causing a

- calculating section of the receiver terminal to calculate a
10 waiting period required for recovery from the shortage of the free space in the storage section, causing the communication section of the receiver terminal to give information of a reception disabled state of the receiver terminal and the waiting period to the transmitter terminal, causing a timer
15 section of the receiver terminal to time the lapse of the waiting period, and causing the transmitter terminal to transmit the data to the communication section of the receiver terminal after the lapse of the waiting period.

13. A storage medium storing therein a
20 computer-executable communication program for communications between a transmitter terminal and a receiver terminal via a communication line, the communication program performing the functions of:

- causing a communication section of the receiver
25 terminal to request transmission of data and size information

indicative of the size of the data from the transmitter terminal;
causing a detection section of the receiver terminal to
detect a free space in a storage section of the receiver terminal;
causing a comparing section of the receiver terminal to

- 5 compare the data size contained in the size information with
the size of the free space in the storage section of the receiver
terminal;

if the storage section of the receiver terminal has a
sufficient free space for accommodation of the data size,
10 causing the transmitter terminal to transmit the data to the
communication section of the receiver terminal; and

if the storage section of the receiver terminal is short
of free space for accommodation of the data size, causing a
calculating section of the receiver terminal to calculate a

- 15 waiting period required for recovery from the shortage of the
free space in the storage section, causing the communication
section of the receiver terminal to give information of a
reception disabled state of the receiver terminal and the
waiting period to the transmitter terminal, causing a timer
20 section of the receiver terminal to time the lapse of the waiting
period, and causing the transmitter terminal to transmit the
data to the communication section of the receiver terminal
after the lapse of the waiting period.